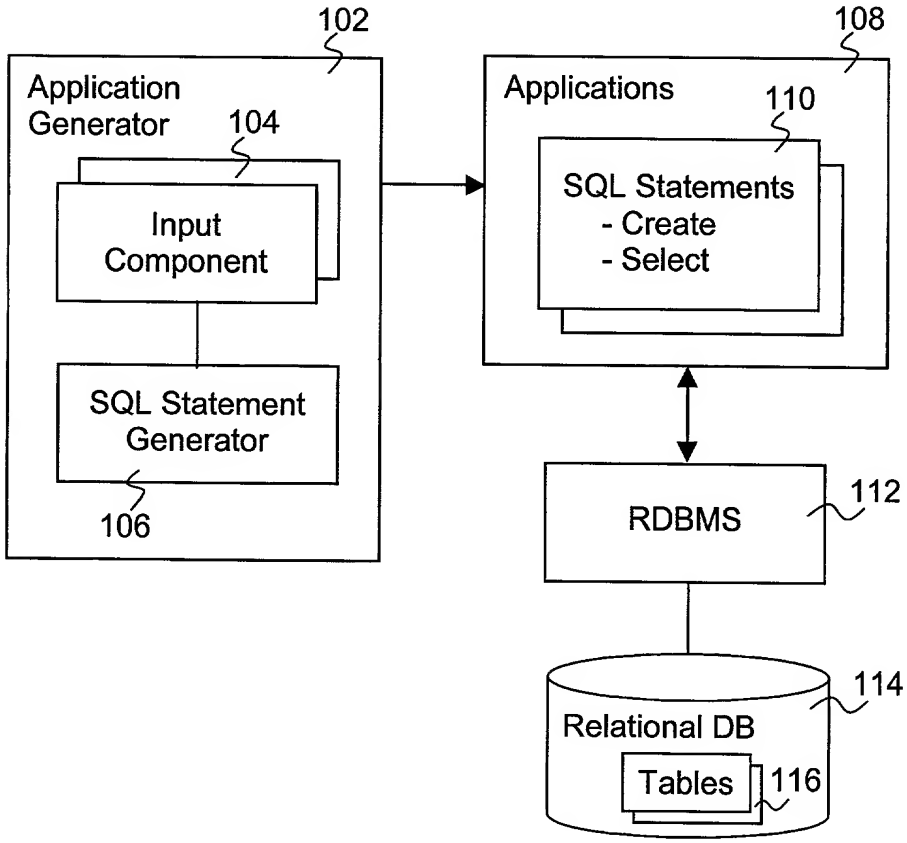
102
Application Generator
104
Input Component
SQL Statement Generator
106
108
Applications
110
SQL Statements
- Create
- Select
RDBMS
112
114
Relational DB
Tables
116

FIG. 1

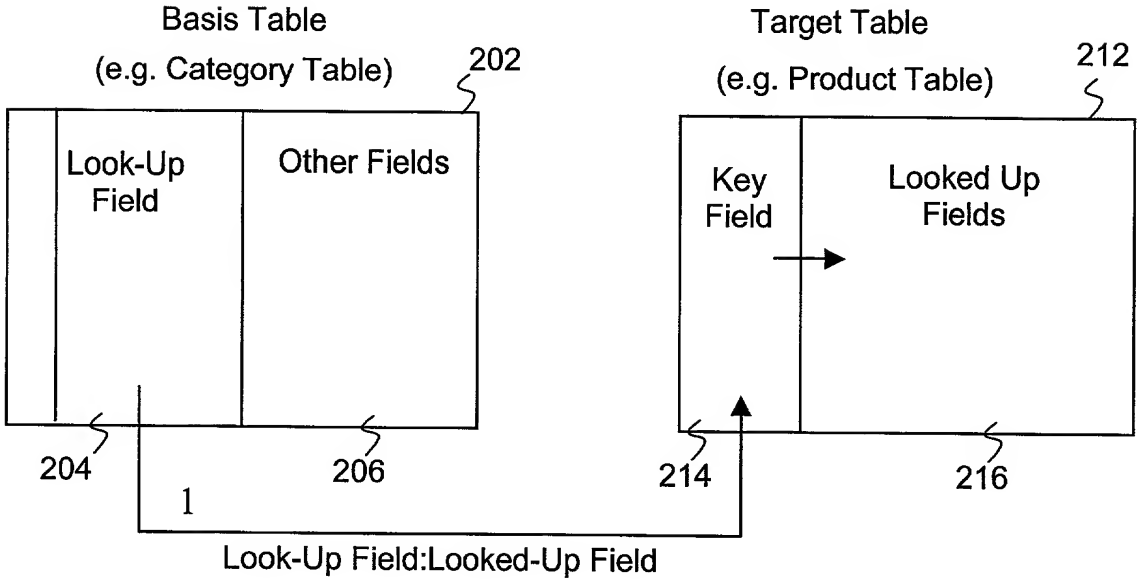
Basis Table
(e.g. Category Table)
202
Look-Up Field
Other Fields
204
206
Target Table
(e.g. Product Table)
212
Key Field
Looked Up Fields
214
216
1
Look-Up Field:Looked-Up Field

FIG. 2

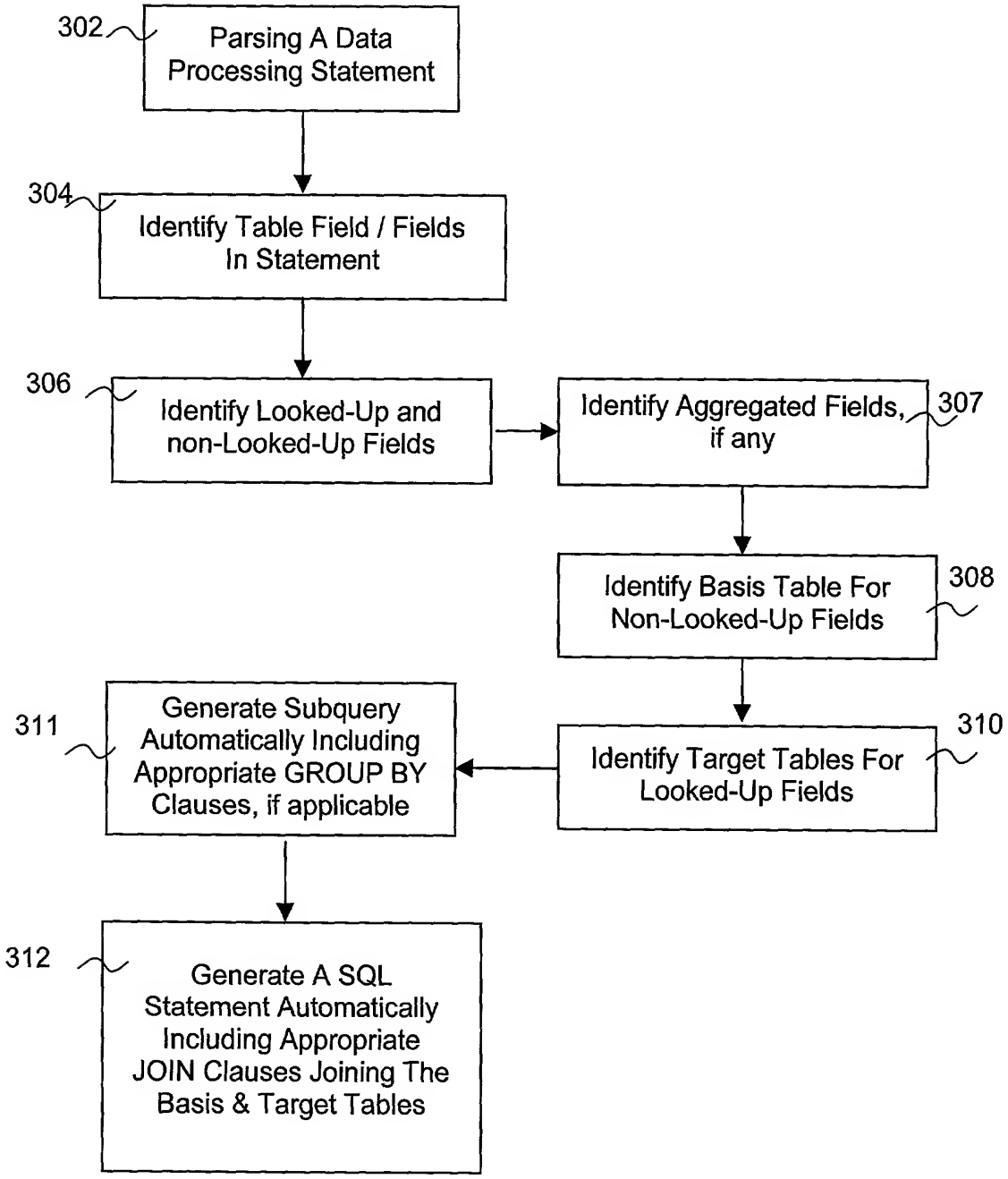
302
Parsing A Data Processing Statement
304
Identify Table Field / Fields In Statement
306
Identify Looked-Up and non-Looked-Up Fields
Identify Aggregated Fields, if any
307
Identify Basis Table For Non-Looked-Up Fields
308
Identify Target Tables For Looked-Up Fields
310
311
Generate Subquery Automatically Including Appropriate GROUP BY Clauses, if applicable
312
Generate A SQL Statement Automatically Including Appropriate JOIN Clauses Joining The Basis & Target Tables

FIG. 3

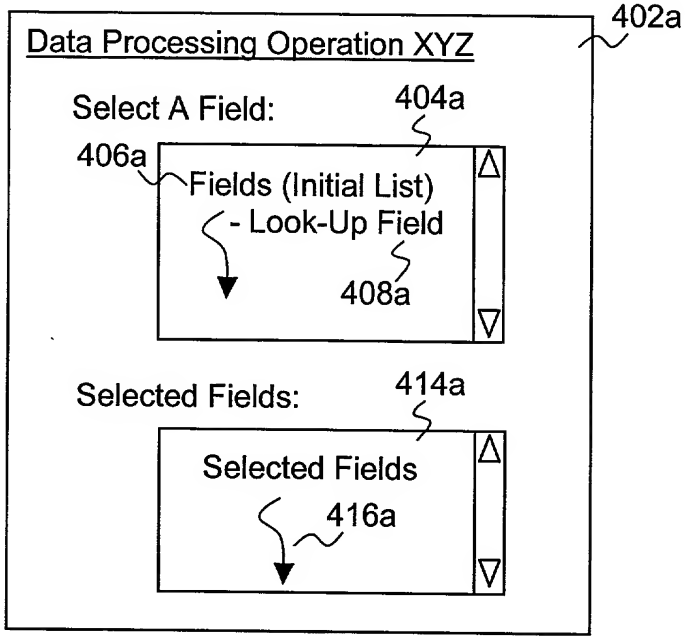


FIG. 4A

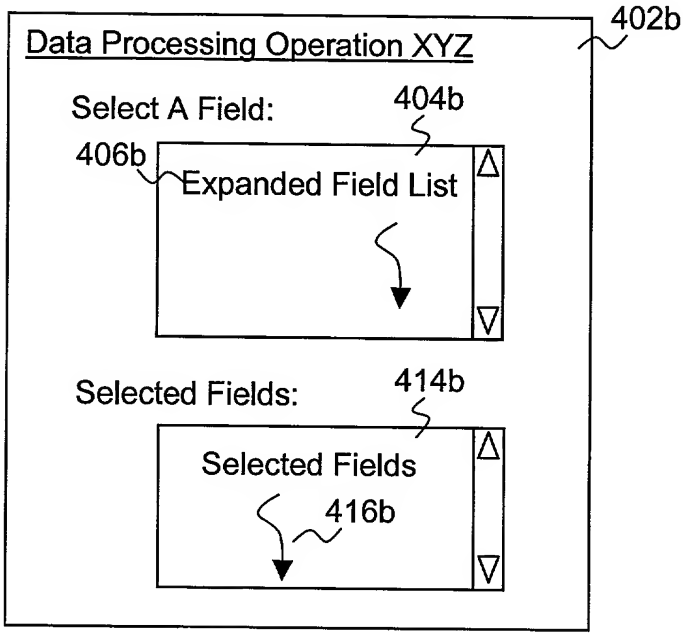


FIG. 4B

Apple Exhibit 1006
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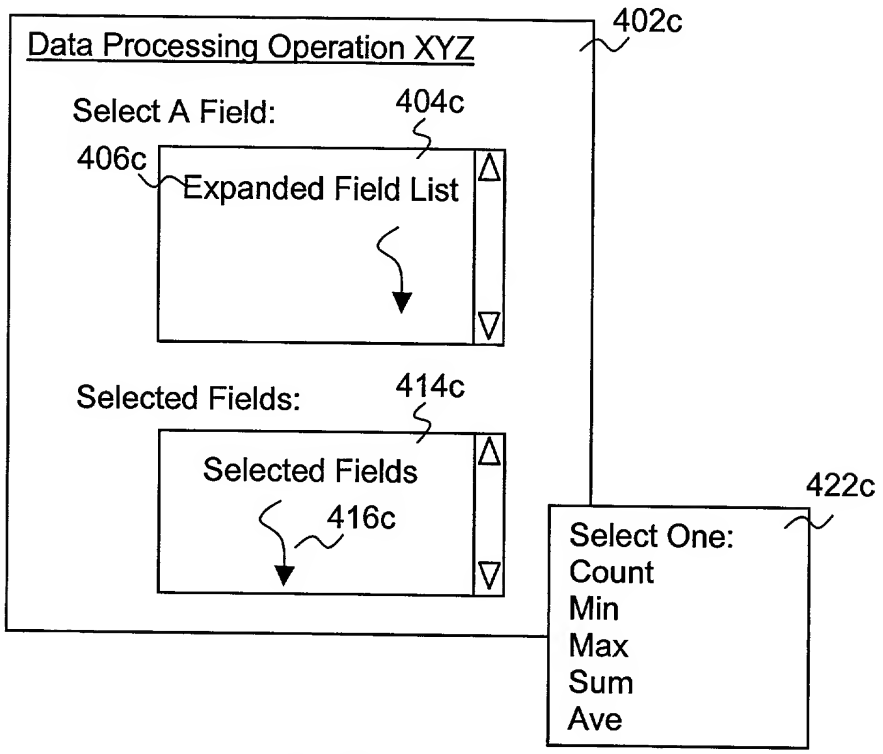


FIG. 4C

Express Mail

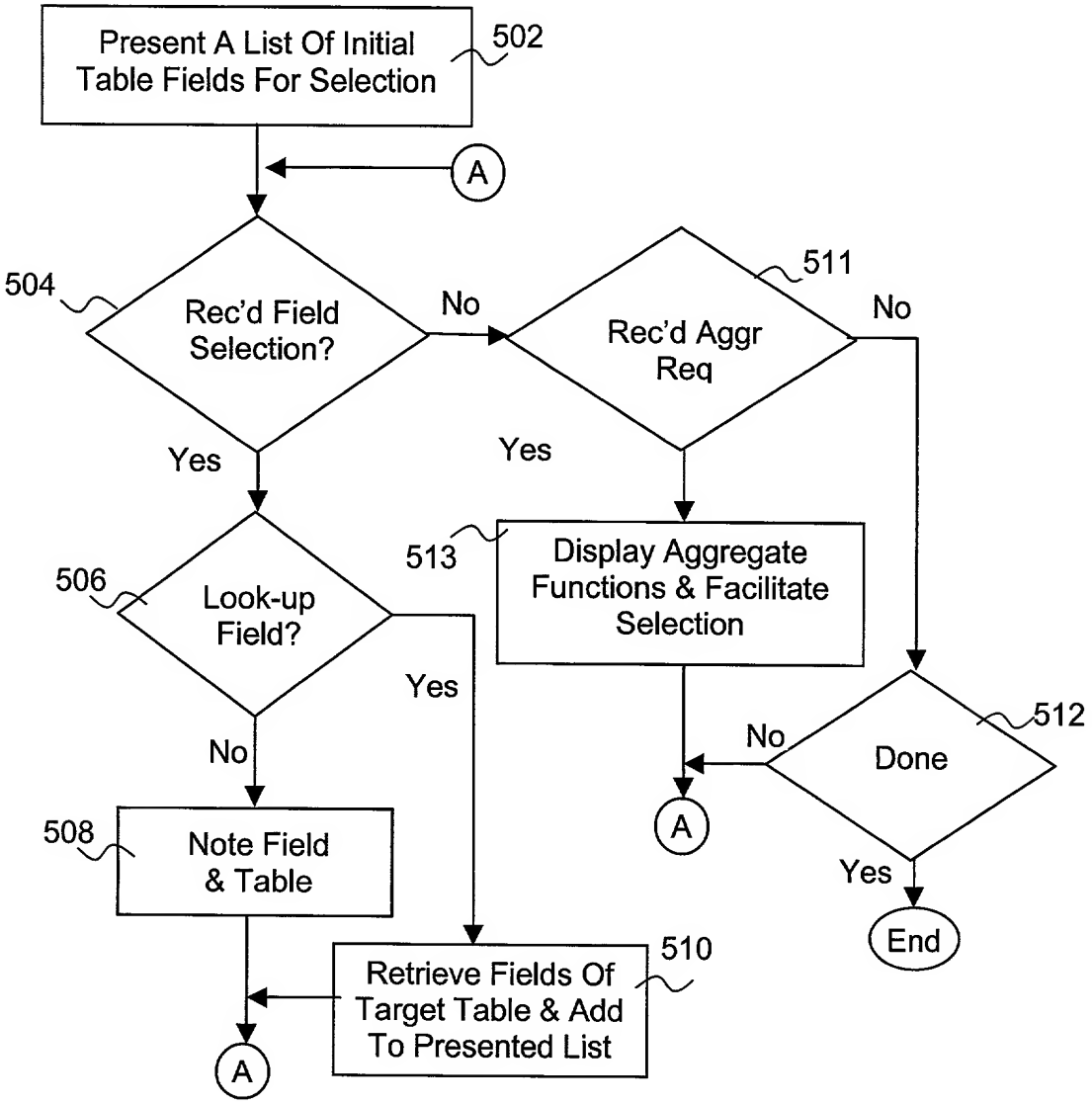
Present A List Of Initial Table Fields For Selection
502
A
504
Rec'd Field Selection?
No
511
Rec'd Aggr Req
No
Yes
Yes
506
Look-up Field?
513
Display Aggregate Functions & Facilitate Selection
Yes
No
512
No
Done
A
508
Note Field & Table
Yes
End
510
Retrieve Fields Of Target Table & Add To Presented List
A

FIG. 5

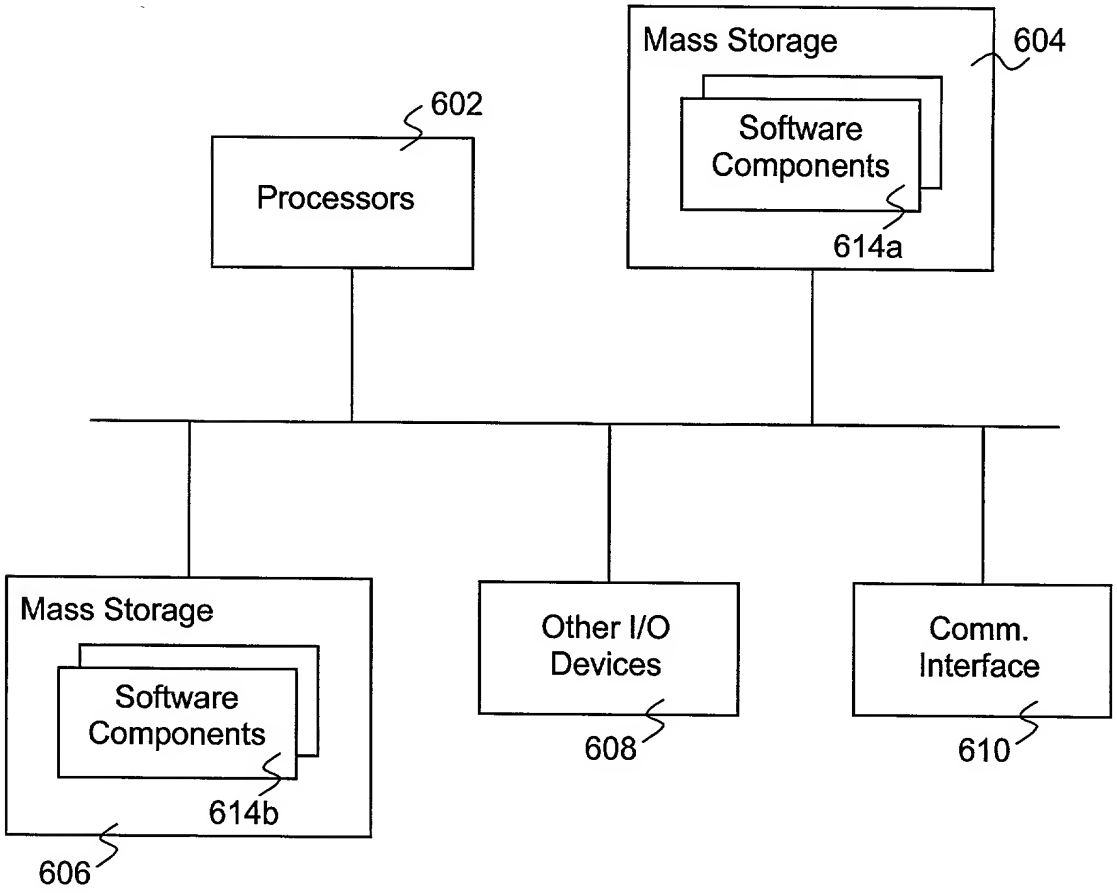
Mass Storage
604
Software Components
614a
602
Processors
Mass Storage
Software Components
614b
606
Other I/O Devices
608
Comm. Interface
610

FIG. 6